the operation, wisely contented himself with cutting off the upper portion of the tumour, securing the vessels, and closing the wound.

She then applied to Dr. Hodder, who operated on the 31st of October, 1872, as follows:—

Chloroform being given, "I commenced the incision downwards and forwards in the course of the cicatrix, to obviate greater deformity, and then directly downwards, and by careful dissection I soon exposed the upper. and more projecting part of the diseased mass. I continued my dissection to the lower angle of the wound, and was ably assisted by Dr. Temple, who retracted the more important vessels and nerves, so as to enable me to get to the pedicle or root of the gland. Although the body of the gland did not partake of the fibro-cystic condition of the upper and more projecting portion, yet it was very considerably enlarged, projecting backwards and inwards, pressing strongly upon the œsophagus, larynx, and upper part of the trachea, and was very firmly attached to the lower and posterior border of the thyroid cartilage, and to the crico-thyroid membrane. During the latter part of the operation I was materially assisted by Dr. Temple seizing the body of the gland with a pair of toothed forceps, and drawing it outwards, which enabled me to get at the root or firmest attachments.

"Its removal required careful and minute dissection, and was effected in great measure by the finger and handle of the knife, with occasional touches of the blade.

"There was a good deal of hemorrhage during the operation, principally venous, but, the external jugular having been divided in the first operation, I was saved from the risk of dividing that vessel. Two arteries, the superior and inferior thyroid, alone required ligatures, and a few twigs were twisted.

"After the removal of the gland, the carotid, pneumogastric, œsophagus, the thyroid and cricoid cartilages were distinctly seen; the wound was left open until all oozing had ceased, and was then closed by several points of suture; a piece of dry lint, with a few strips of plaster and a bandage, completed the dressing.

"After the removal of the tumour it was found to be the right lobe of the thyroid gland entire, the upper half being about the size of an egg, and fibro-cystic in character, which formed the projecting portion, the cysts containing a grayish substance somewhat like sago in appearance and consistence, the upper and larger cyst having been torn by the forceps during its removal; the lower half, and that portion which pressed upon the œsophagus and trachea, was about four inches long, and appeared healthy although very much hypertrophied."

The latest report is Nov. 20, only twenty days after the operation, when it is stated, "Ligatures still firm, in every other respect quite well."

On Ovariotomy.—Dr. J. MARION SIMS contributes (*New York Med. Journ.*, Dec. 1872) an interesting paper on this subject. He thinks the clamp has seen its best days, and, when the question of the management of the pedicle is positively determined, he has scarcely a doubt that it will be against the principle of drawing the pedicle externally.

"For twenty years," Dr. Sims says, "I have advocated the plan of tying the pedicle with silver wire, which I felt sure would become sacculated, and therefore produce no harm; and for the last ten years this plan has been followed by Dr. Emmet and myself. . . . . So far, Dr. Emmet and myself have every reason to be satisfied with our method of dealing with the pedicle. But I have no prejudices whatever on the subject, and I think the time may possibly come when clamps and ligatures, whether of twine, catgut, or wire, may give way to torsion of the arteries, or to their obliteration by the enucleation of the pedicle from the coats of the cyst."

Dr. Sims thinks that if we desire to reduce the mortality of ovariotomy we should leave the pedicle and turn our attention to another quarter. From a study of his own *post-mortems* and those of Mr. Spencer Wells,[1] he arrives at the conclusion that "septicæmia is the great outlet of life in ovariotomy."

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[1] Diseases of the Ovaries. By T. Spencer Wells.

In Mr. Spencer Wells's twenty-eight fatal cases in which *post-mortem* examinations were made, two died of tetanus, and, of the remaining twenty-six, "two had pyæmic poisoning, and twenty-four presented the infallible *post-obit* evidences of septicæmia. . . . . In every one of my seven *post-mortem* examinations, and in every one of Mr. Spencer Wells's twenty-six, we find uniformly the same pathological appearances. In all of them we find a quantity of reddish serum, or grayish turbid serum, or fetid serum, or putrid serum, or acrimonious serum, in the peritoneal cavity; and in cases slowly dying of pyæmia we invariably find pyogenic reservoirs in the pelvic cavity. Is it not logical to infer that these pent-up fluids are the causes of the blood-poisoning that so uniformly, I should say universally, attends fatal cases of ovariotomy?

"I do not pretend to deny that death may occur from shock, or from hemorrhage, or from heart-clot, or from exhaustion, or even from peritonitis; but I feel sure that these, independently of blood-poisoning and its legitimate causes, are of comparatively rare occurrence. If, then, we have such an almost universal evil to deal with as septicæmia, and if that septicæmia is, in thirty-seven cases out of thirty-nine, clearly traceable to the poisonous fluids effused in the peritoneal cavity, is it not self-evident that the indication, both of prevention and cure, is to drain off these poisonous fluids in the speediest and most direct way possible?"

Dr. Peaslee recommended washing out the peritoneum with disinfectants, and began this practice in 1855. In his recent book[1] he defines the manner, conditions, and advantages of using intra-peritoneal injections.

"To him [Dr. Peaslee] we owe the principle of intra-peritoneal medication. I claim only to be his coadjutor. But the rule that he would establish for exceptional cases I wish to make applicable to all alike; and, instead of washing out the peritoneal cavity at the top, I propose to open it at the bottom, as he did in 1855, and let the fluids run out spontaneously and continuously. The natural outlet of the peritoneal cavity is through the Douglas *cul-de-sac*.

"If the drainage through this *cul-de-sac* be made promptly and thoroughly, there is every reason to believe that pyæmic collections, such as happened to Mr. Spencer Wells, could never take place; and that septicæmic poisoning would in a great measure be prevented.

"What I propose, then, is simply this: to puncture the *cul-de-sac* of the vagina behind the cervix uteri, and to pass a tube of some sort into the peritoneal cavity to drain off any effusion that may take place in said cavity. I propose to do it in every instance, whether there are adhesions or not. Patients may and do die of septicæmia after ovariotomy, where there are no adhesions. Hence it is safe to make this puncture in every case, whether simple or complicated. If in three or four days we see that there is no necessity for this precautionary step in the operation, we have nothing to do but to remove the tube, and in twenty-four hours the little puncture closes up spontaneously. Where is the harm, then, of making the puncture? It adds nothing, not the prick of a pin, to the danger of ovariotomy. It cannot, possibly, do the least harm, and it may be the means of saving life. It may be said that it is time enough to make the puncture when bad symptoms arise. But we know that many cases go on very well for two or three days, when, all at once, there is an explosion as it were; the pulse suddenly jumps from 100 to 120, and then to 140, with vomiting, tympanites, hot skin, and oppressed breathing; the pulse gets quicker and more feeble, and the patient sinks exhausted in sixty or seventy hours after operation. We are in doubt what else to do but to give stimulants; and it is too late to be operating in the dark on a dying patient's vaginal *cul-de-sac*. During the ovariotomy it would have been nothing to puncture it, but now it becomes a difficult thing to do, and we naturally shrink from tormenting one in such extreme agony and prostration, unless we should feel sure of finding the cause of the evil, and of warding off the dangers of the moment. But in my own mind I am sure of what generates these alarming and too often dangerous symptoms, and I beg to urge upon my brethren, with all the earnestness of a deep-settled conviction, the propriety, the necessity, the safety, and the efficiency, of resorting to this drainage by the vagina in every case of ovariotomy, both as a preventive and curative agent against septicæmia, which, I am sure, is the great danger in this formidable operation."

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[1] Ovarian Tumors. By E. Randolph Peaslee.

Since May, 1872, Dr. Sims has performed four ovariotomies with the drainage plan.

Absorption of the Humerus after Fracture.—From the *Boston Medical and Surgical Journal* (Oct. 10, 1872) we glean the following notes of a case which is stated on excellent authority to be "without parallel in the records of surgery:"—

In 1819, Mr. C. B., at the age of 18, fractured his right humerus near the middle. Subsequently, and before he had recovered entirely, he broke his arm at the same point, a second time, while holding a plough in the field. A short time afterward he slipped on the floor and fractured the bone a third time. The last accident was not more than two months from the occurrence of the first. After this final fracture, there was never any tendency to a union of the broken bone, but the humerus began slowly and painlessly to disappear, small fragments of it breaking off, without accompanying inflammation of the soft parts, or any fistulous or suppurating sore, or orifice. The skin of the arm was never broken, and no piece of bone or part of the humerus was ever taken away, or came out unassisted. For four years, Mr. B. did no work, but the process of absorption covered a period of twelve years, at the end of which time the limb had attained a condition in which it permanently remained until the day of his death, at the age of 70 years. This occurred at the Boston Lunatic Hospital, on February 11th, 1871, and was caused by double pneumonia. He had been an inmate of this Institution, at intervals, for four years and three months, but, except in mental condition, was, as he had always been, in excellent general health, with no local affection of his osseous system, except in the arm already alluded to, and capable of a very considerable amount of manual labour, which he willingly and readily performed.

Dr. C. B. Porter, Demonstrator of Anatomy in the Medical Department of Harvard University, gives the following description of the specimen:—

"All traces of the humerus are obliterated, except its two extremities. The remains of the lower extremity consist of a small, somewhat irregular, pyramidal piece of bone and cartilage, an inch and a half long, three-quarters of an inch wide at its base, its apex pointing upward and somewhat outward. This articulates in a very imperfect way with the radius and ulna, both of whose upper extremities are modified by absorption, and their shafts fused together for their upper third into one slender bone, tapering off in a small and imperfect olecranon. This anchylosis at the upper part of the forearm reduces the rotation of the radius on the ulna at the wrist to a very slight motion. The remains of the upper extremity of the humerus consist of a thin, auricular-shaped plate of bone, two inches long and one inch wide, in close relation with the glenoid cavity, but presenting no real articular surface. On the outer and upper edge of this piece are inserted the tendons of the supra- and infra-spinatus and teres minor, defining this as the greater tuberosity. Just below this is another bony fragment, an inch long, half an inch wide, slightly concave, into the anterior border of which is inserted the tendon of the pectôralis major. Into the inner and upper border is inserted the tendon of the teres major. The latissimus dorsi, which normally should be inserted with that of the teres major, is inserted, however, into the lower border of the teres major, midway between its origin and insertion. A strong, fibrous band connects it with this last-mentioned fragment of bone. A third piece, a small nodule, four lines long by two lines wide, is attached to this plate on its upper and internal aspect by a tendinous band; the tendon of the subscapularis muscle is inserted into this nodule, characterizing it thereby as the lesser tuberosity of the humerus. The articular surface of the glenoid cavity is obliterated; the bone itself only slightly if at all modified. The intervening space between the upper and lower fragments of the humerus is occupied by a fibro-muscular mass, and about half the normal length of the humerus, judging from the size of the scapula and the length of the forearm. This is made up, principally, of the brachialis anticus and the triceps,